

INTERNATIONAL SEARCH REPORT

International Application No

PCT/BE2004/000103

A. CLASSIFICATION OF SUBJECT MATTER
 IPC 7 H04R3/00 G10L21/02

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 G10L H04R

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, WPI Data, PAJ, COMPENDEX, INSPEC

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	EP 0 700 156 A (NIPPON ELECTRIC CO) 6 March 1996 (1996-03-06) column 1, line 3 - column 3; claim 8 column 3, line 42 - column 9, line 21	1-5,7,8
Y		6,9-12
X	NEO W H ET AL: "Robust microphone arrays using subband adaptive filters" IEE PROCEEDINGS: VISION, IMAGE AND SIGNAL PROCESSING, INSTITUTION OF ELECTRICAL ENGINEERS, GB, vol. 149, no. 1, 21 February 2002 (2002-02-21), pages 17-25, XP006017903 ISSN: 1350-245X page 17 - page 21	1-5,7,8
Y		6,9-12

☒ Further documents are listed in the continuation of box C.

☒ Patent family members are listed in annex.

* Special categories of cited documents:

A document defining the general state of the art which is not considered to be of particular relevance

E earlier document but published on or after the international filing date

L document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)

O document referring to an oral disclosure, use, exhibition or other means

P document published prior to the international filing date but later than the priority date claimed

T later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

X document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

Y document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.

Z document member of the same patent family

Date of the actual completion of the international search

22 November 2004

Date of mailing of the international search report

06/12/2004

Name and mailing address of the ISA

European Patent Office, P.B. 5818 Patentlaan 2
 NL - 2280 HV Rijswijk
 Tel. (+31-70) 340-2040, Tx. 31 651 epo nl,
 Fax: (+31-70) 340-3016

Authorized officer

Peirs, K

INTERNATIONAL SEARCH REPORT

International Application No

PC., BE2004/000103

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	US 2002/034310 A1 (HOU ZEZHANG) 21 March 2002 (2002-03-21) paragraph '0003! - paragraph '0016! -----	6,9-12
P,X	PROCEEDINGS OF THE 2003 INTERNATIONAL WORKSHOP ON ACOUSTIC ECHO AND NOISE CONTROL, 'Online! 8 September 2003 (2003-09-08), pages 147-150, XP002305847 SPATIALLY PRE-PROCESSED SPEECH DISTORTION WEIGHTED MULTI-CHANNEL WIENER FILTERING FOR NOISE REDUCTION IN HEARING AIDS Retrieved from the Internet: URL:http://www.kuleuven.ac.be/expor1/Lab/M embers/Spriet.php> 'retrieved on 2004-11-09! the whole document -----	1-12
A	US 5 953 380 A (IKEDA SHIGEJI) 14 September 1999 (1999-09-14) column 1, line 5 - column 4, line 56 column 5, line 6 - column 8, line 37 -----	1-12
A	OMOLOGO M ET AL: "Environmental conditions and acoustic transduction in hands-free speech recognition" SPEECH COMMUNICATION, AMSTERDAM, NL, vol. 25, no. 1-3, 1 August 1998 (1998-08-01), pages 75-95, XP004148066 ISSN: 0167-6393 page 76, column 1 - page 78, column 1 page 86, column 1 - page 88, column 1 -----	1-12
A	LIN L ET AL: "Speech denoising using perceptual modification of Wiener filtering" ELECTRONICS LETTERS, IEE STEVENAGE, GB, vol. 38, no. 23, 7 November 2002 (2002-11-07), pages 1486-1487, XP006019184 ISSN: 0013-5194 the whole document -----	1-12
A	LINK M J ET AL: "Robust real-time constrained hearing aid arrays" APPLICATIONS OF SIGNAL PROCESSING TO AUDIO AND ACOUSTICS, 1993. FINAL PROGRAM AND PAPER SUMMARIES., 1993 IEEE WORKSHOP ON NEW PALTZ, NY, USA 17-20 OCT. 1993, NEW YORK, NY, USA, IEEE, 17 October 1993 (1993-10-17), pages 81-84, XP010130073 ISBN: 0-7803-2078-6 the whole document -----	1-12

INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

PCT/BE2004/000103

Patent document cited in search report		Publication date	Patent family member(s)	Publication date
EP 0700156	A	06-03-1996	CA 2157418 A1 DE 69526892 D1 DE 69526892 T2 EP 0700156 A2 JP 2720845 B2 JP 8122424 A US 5627799 A	02-03-1996 11-07-2002 19-12-2002 06-03-1996 04-03-1998 17-05-1996 06-05-1997
US 2002034310	A1	21-03-2002	AU 4574001 A CN 1418448 T DE 10195933 T0 JP 2003527012 T WO 0169968 A2	24-09-2001 14-05-2003 30-04-2003 09-09-2003 20-09-2001
US 5953380	A	14-09-1999	JP 2882364 B2 JP 10003298 A CA 2207716 A1	12-04-1999 06-01-1998 14-12-1997